

WHAT IS CLAIMED IS:

1. A transformer comprising:

a bobbin having first and second tube-shaped members which are coaxial and integral with one another, said first tube-shaped member being located radially within said second tube-shaped member so as to form a gap located therebetween;

10 a first winding comprising an air-core coil located in said gap between said first and second tube-shaped members of said bobbin; and

a second winding affixed to said second tube-shaped member of said bobbin.

2. A transformer according to Claim 1, wherein said air-coil is not affixed to either said first or second tube-shaped members.

3. A transformer according to Claim 1, wherein said first winding has a smaller number of turns than said second winding and serves as an input winding which allows a first current associated with a first voltage to flow therethrough, said second winding serving as an output winding which allows a second current associated with a second voltage, higher than said first voltage, to flow therethrough.

5 4. A transformer according to one of Claim 3, further comprising a third winding wound on said second tube-shaped member.

5. A transformer according to Claim 4, wherein said third winding serves as a feedback winding which allows a current which is smaller than said second current to flow therethrough.

6. A transformer according to one of Claim 1, further comprising a third winding, separate from said second winding, located on said second tube-shaped member.

7. A transformer according to Claim 6, wherein said third winding serves as a feedback winding which allows a current which is smaller than said second current to flow therethrough.

8. A transformer according to claim 1, wherein said first and second tube-shaped members are coupled together by a radially extending base member.

9. A transformer according to claim 8, further including terminals extending from said radially extending base member.

10. A transformer according to claim 9, wherein at least two of said terminals are coupled to said secondary winding.

11. A transformer comprising:

a bobbin having first and second axially extending members which are coaxial and integral with one another, said first member being located radially within said second member so as to form a gap therebetween;

5 a first winding comprising an air-core coil located in said gap; and

a second winding affixed to said second member.

12. A transformer according to Claim 11, wherein said air-coil is not affixed to either said first or said axially extending members.

13. A transformer according to Claim 11, wherein said first winding has a smaller number of turns than said second winding and serves as an input winding which allows a first current associated with a first voltage to flow therethrough, said second winding serving as an output winding which allows a second current associated with a second voltage, higher than said first voltage, to flow therethrough.

5 14. A transformer according to one of Claim 13, further comprising a third winding wound on said second axially extending member.

15. A transformer according to Claim 14, wherein said third winding serves as a feedback winding which allows a current which is smaller than said second

current to flow therethrough.

16. A transformer according to one of Claim 1, further comprising a third winding, separate from said second winding, located on said second axially extending member.

17. A transformer according to Claim 16, wherein said third winding serves as a feedback winding which allows a current which is smaller than said second current to flow therethrough.

18. A transformer according to claim 1, wherein said first and second axially extending members are coupled together by a radially extending base member.

19. A transformer according to claim 18, further including terminals extending from said radially extending base member.

20. A transformer according to claim 19, wherein at least two of said terminals are coupled to said secondary winding.